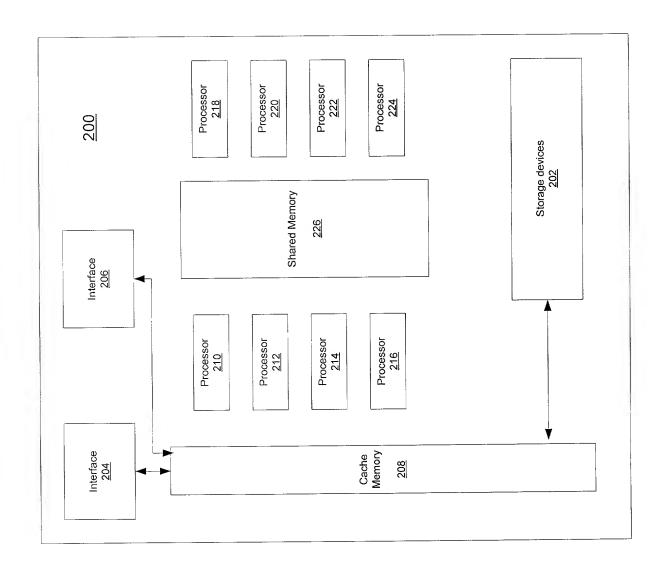
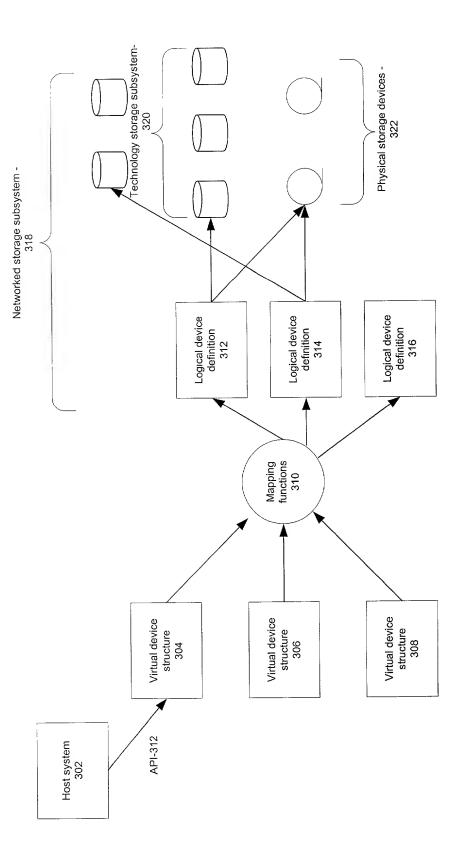


Figure 2
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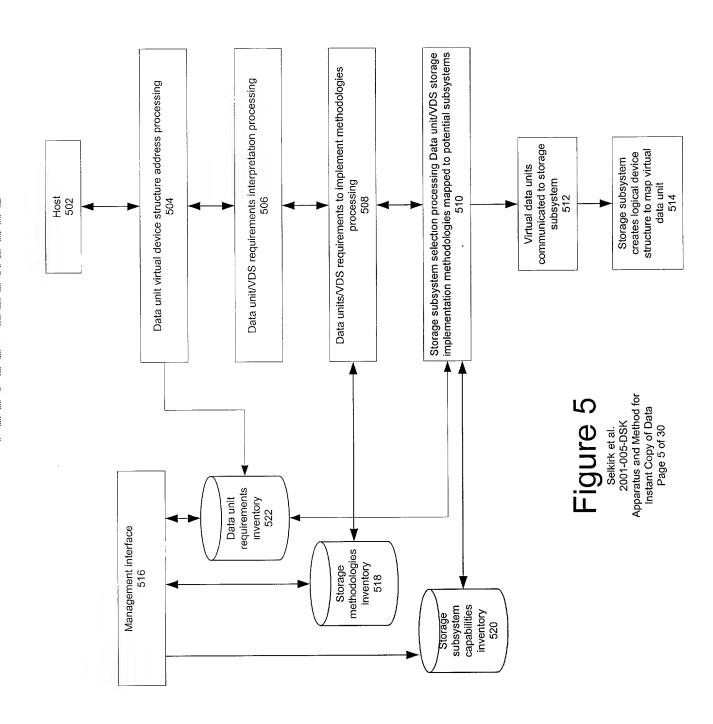


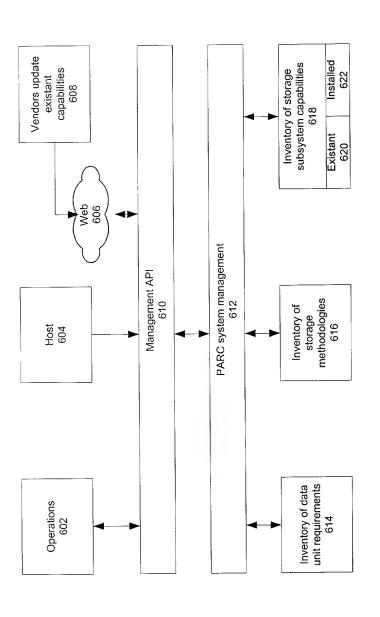


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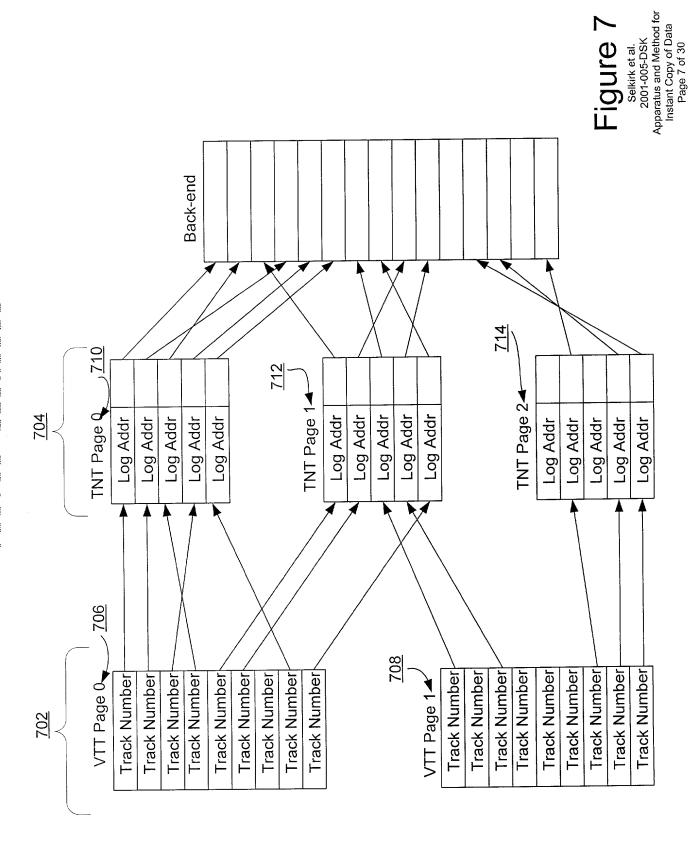
402

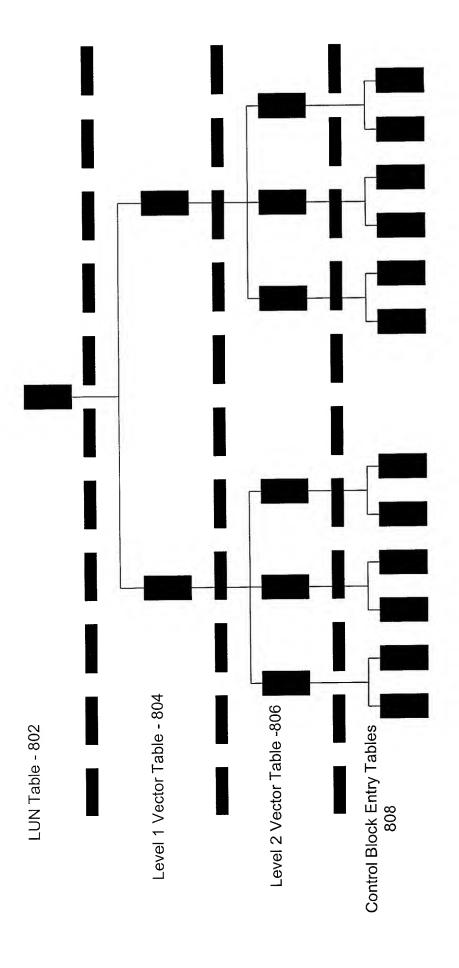
Selkirk et al. 2001-005-DSK Apparatus and Method for Instant Copy of Data Page 4 of 30 Figure 4 Data - records  $n_{k+1}$  through  $n_x$ ; records ... Data - records n<sub>j</sub> through n<sub>k</sub>; records n<sub>y+1</sub> through n<sub>z</sub> Data - records n<sub>x+1</sub> through n<sub>y</sub>; records ...... RAID stripe group B 404 RAID stripe group C RAID stripe group A





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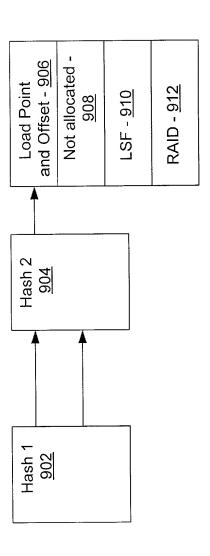
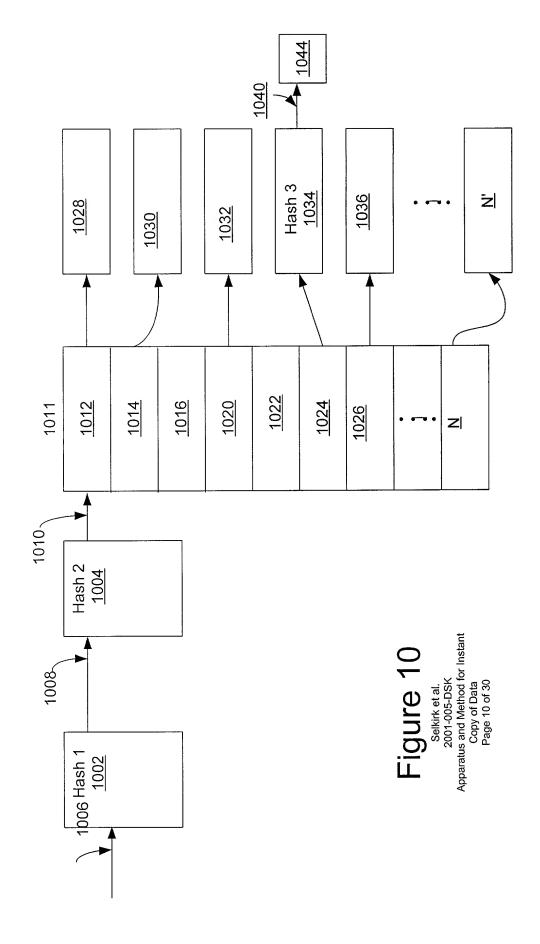
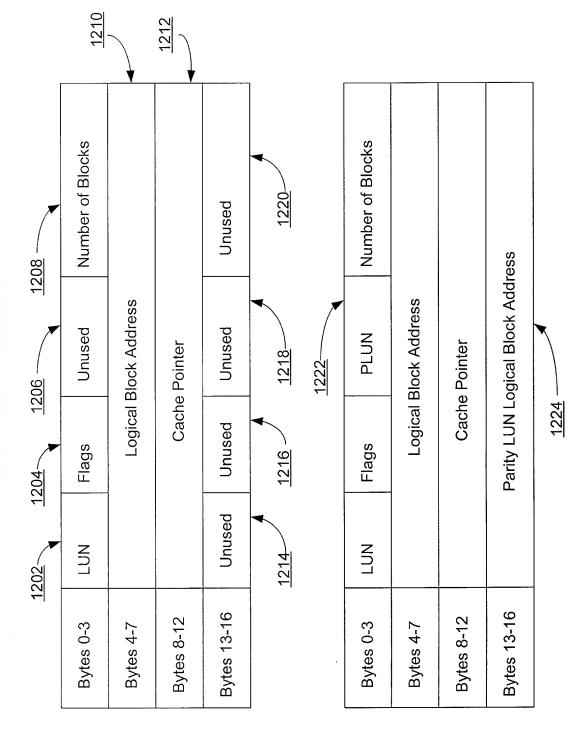


Figure 9
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Stripe 2 Parity - 1161 Stripe 3 - 1162 Stripe 4 - 1163 Stripe 5M - 1164	Drive - 1160
Stripe 1 Parity - 1151 Stripe 2 - 1152 Stripe 3 - 1153 Stripe 5 - 1154	Drive - 1150
Stripe 1 - 1141 Stripe 2 - 1142 Stripe 3 - 1143 Stripe 4 Parity - 1144	Drive - 1140
Stripe 1 - 1131 Stripe 2 - 1132 Stripe 3 Parity - 1133 Stripe 4 - 1134	Drive - 1130
Stripe 1 - 1121 Stripe 2 - 1122 Stripe 3 - 1123 Stripe 4 - 1124	Drive - 1120
Stripe 1 - 1111 Stripe 4 - 1112 1113	Drive - 1110

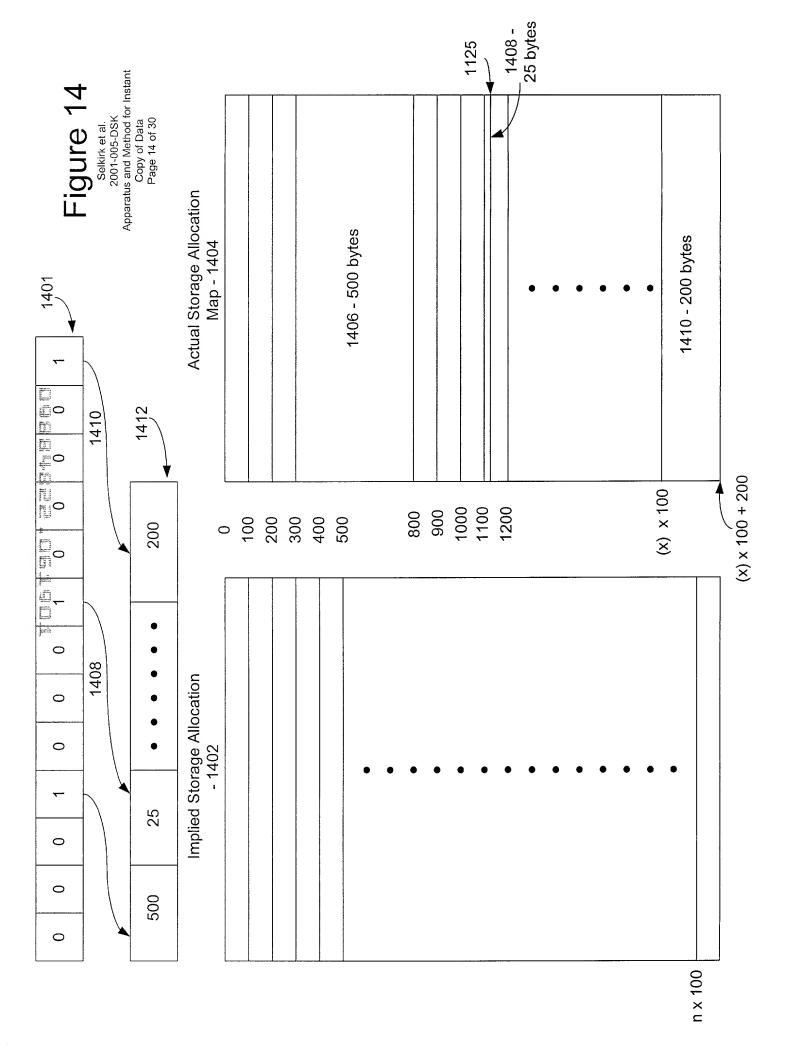
Figure 11
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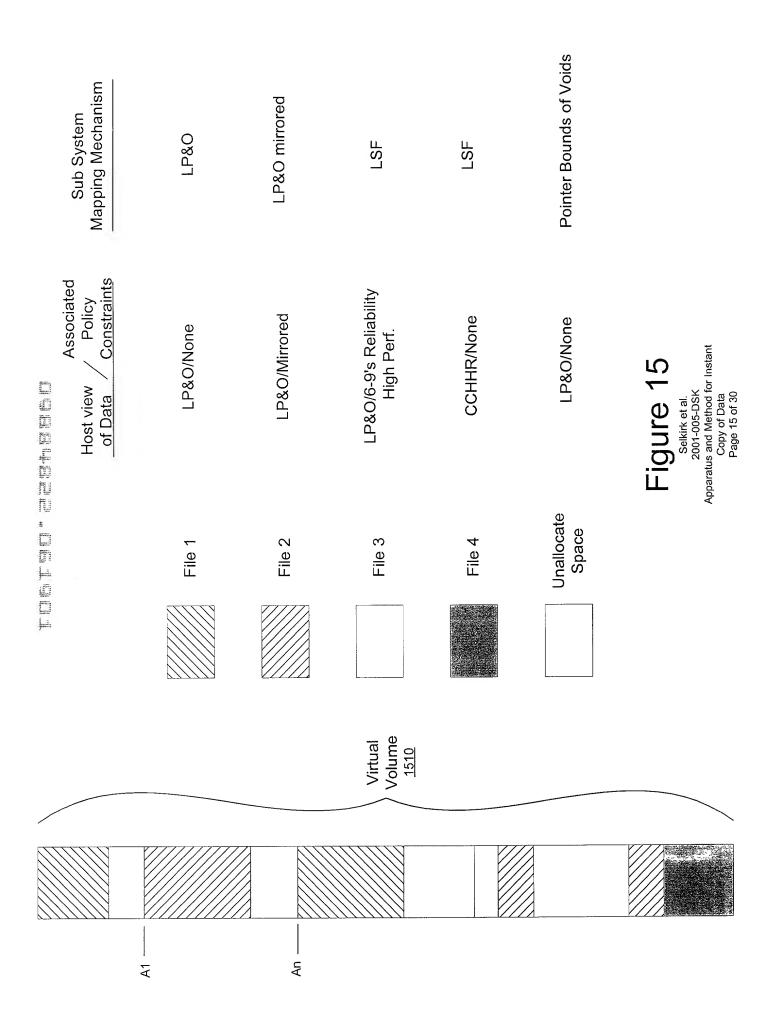


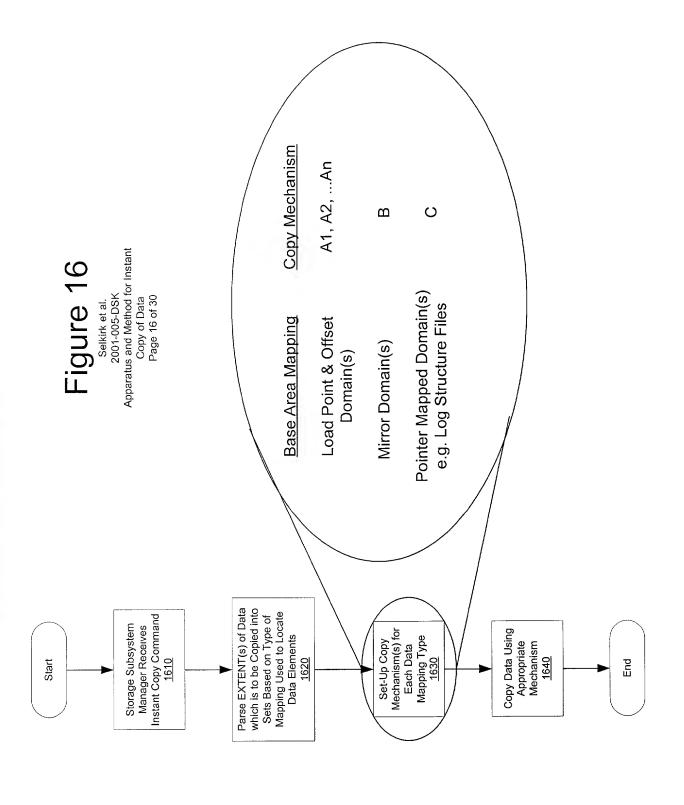
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Timestamp	LBA of previous stripe	LBA or previous surpe Previous stripe LUN Index of parity drive RAID type of stripe # of strips in stripe		# of host pieces in strip Unused	LBA of data on 1st LUN	# of host pieces in strip Unused	LBA of data on 2nd LUN	# of host pieces in strip Unused	pieces in strip	on Nth LUN	Host Length	Host LBA	Host Length	Host I BA
			Index of parity drive		Active count	LBA of data	Active count	LBA of data	Active count	LBA of data on Nth LUN		Length in strip	Hos	Length in strip
		Previous stripe LUN	Strip size in blocks	1st LUN in stripe		2nd LUN in stripe		Nth LUN in stripe			Host LUN		Host LUN	

Figure 13
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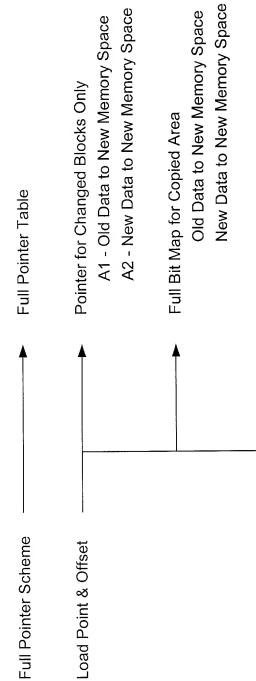






### Original Mapping

# Instant Copy Meta-Data Type



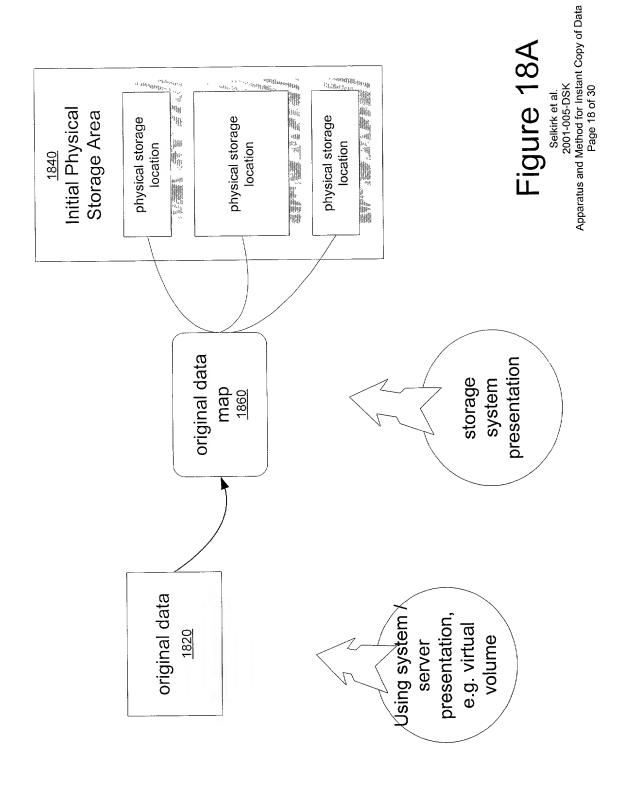
# Figure 17

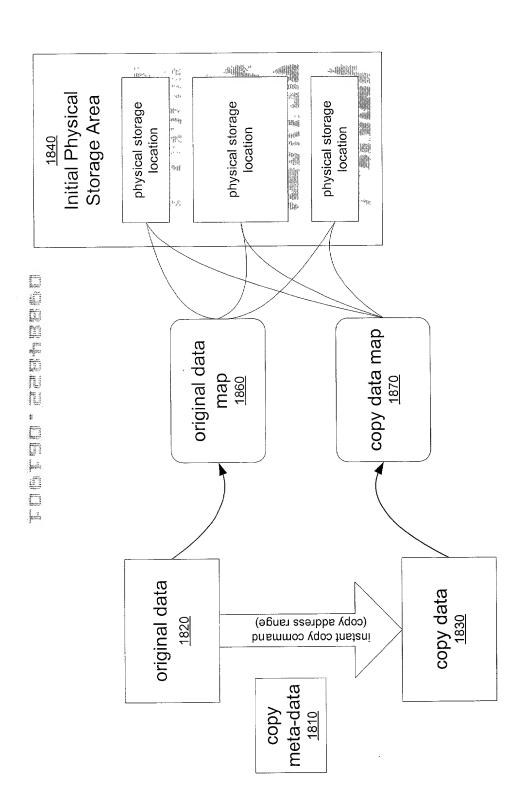
Partial Area Bit Maps (with Extent Definitions & Pointers to

Partial Areas)

Multi-Level Bit Maps

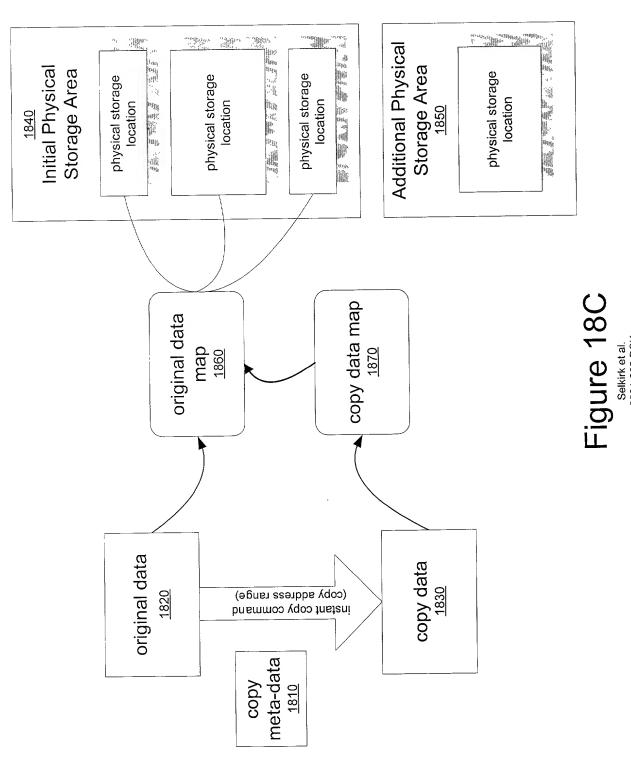
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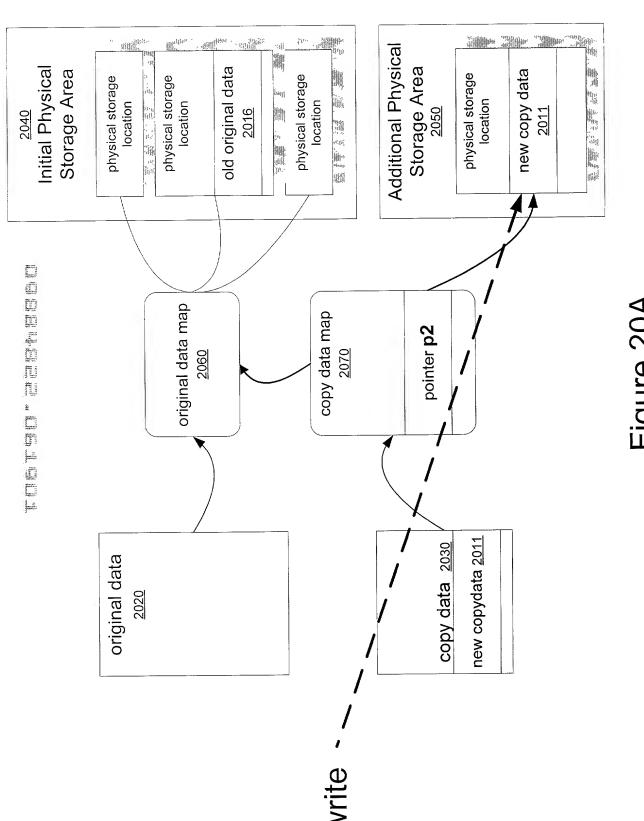
# Figure 18B

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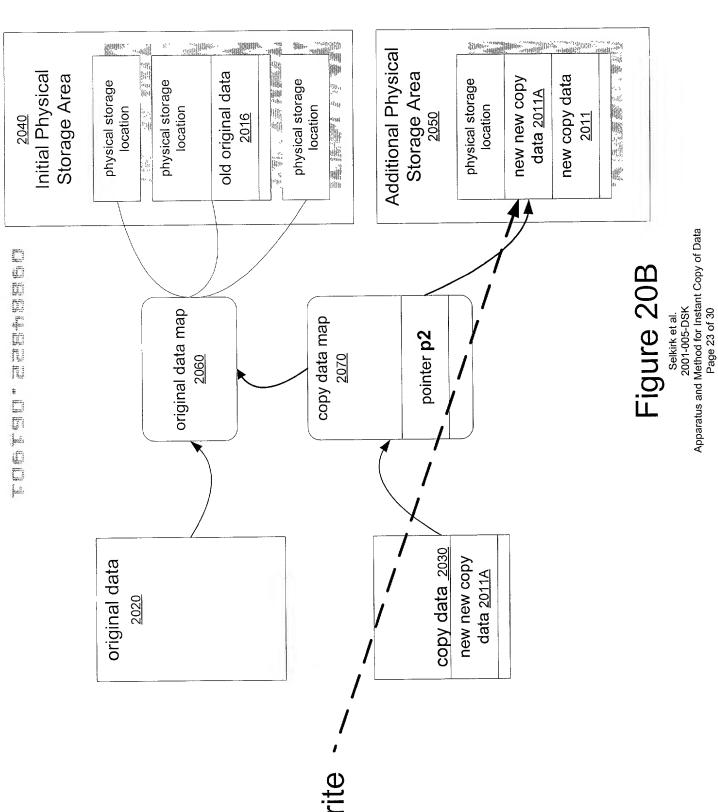
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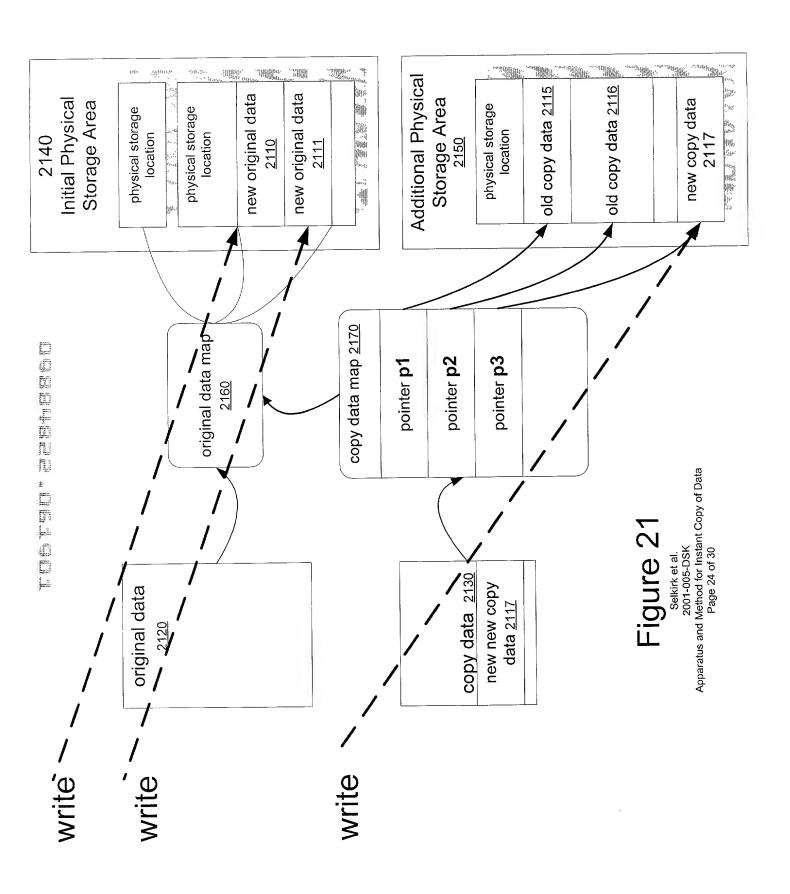
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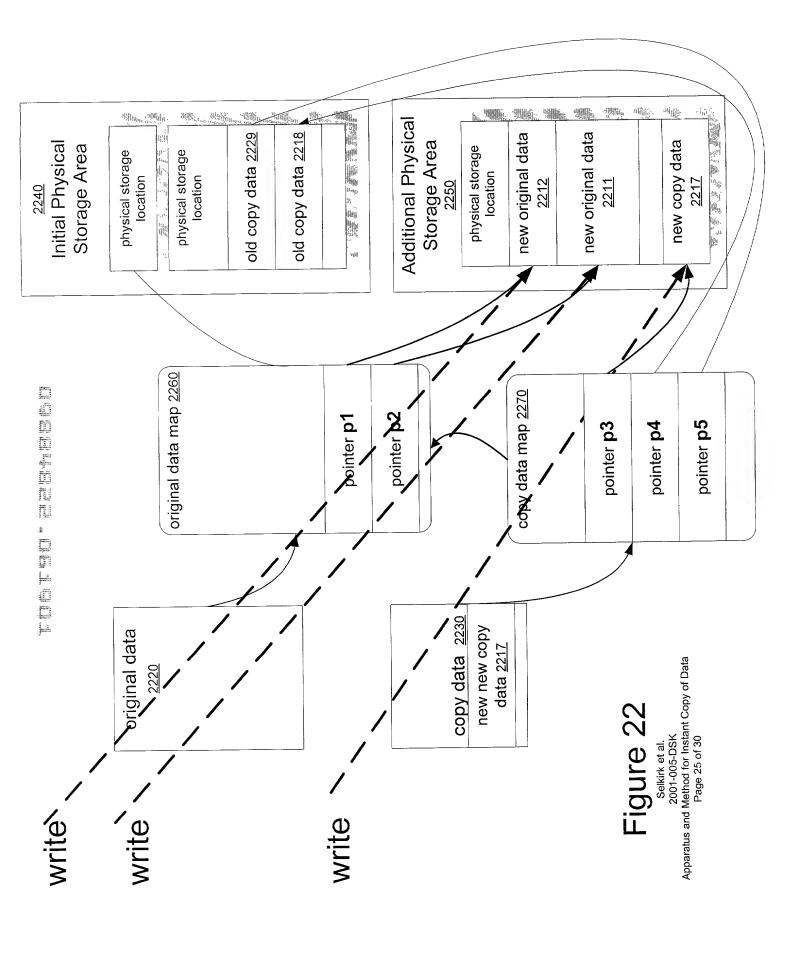


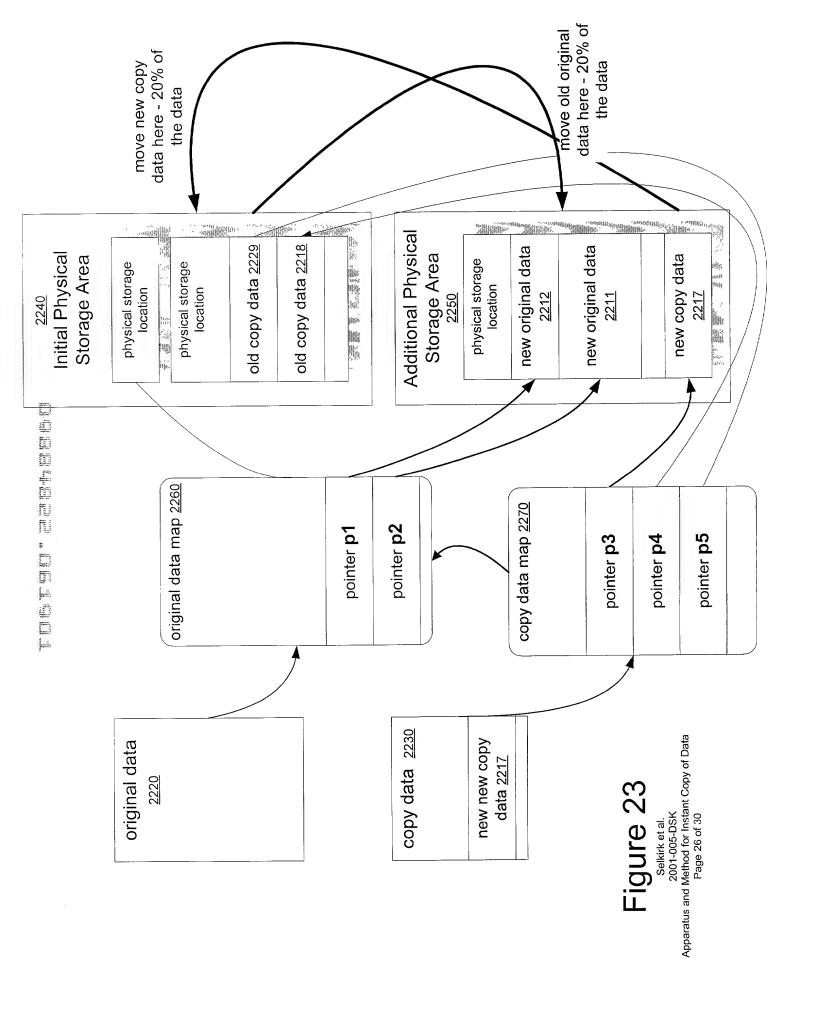
# Figure 20A

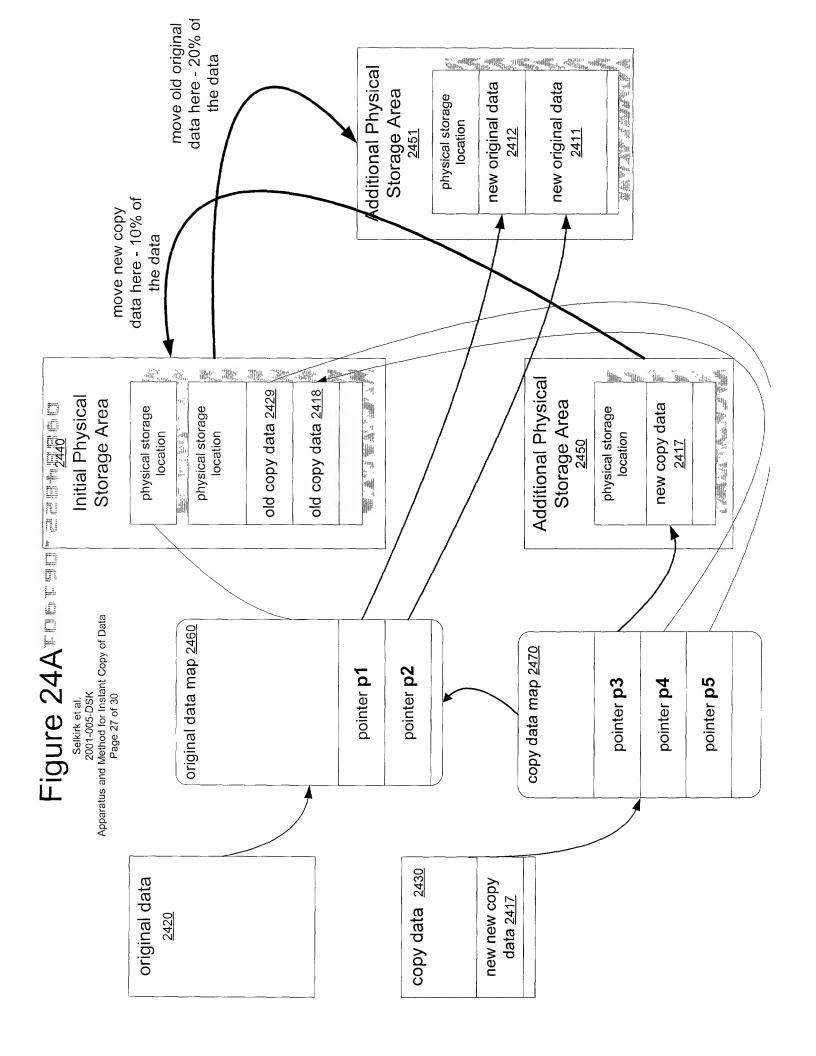
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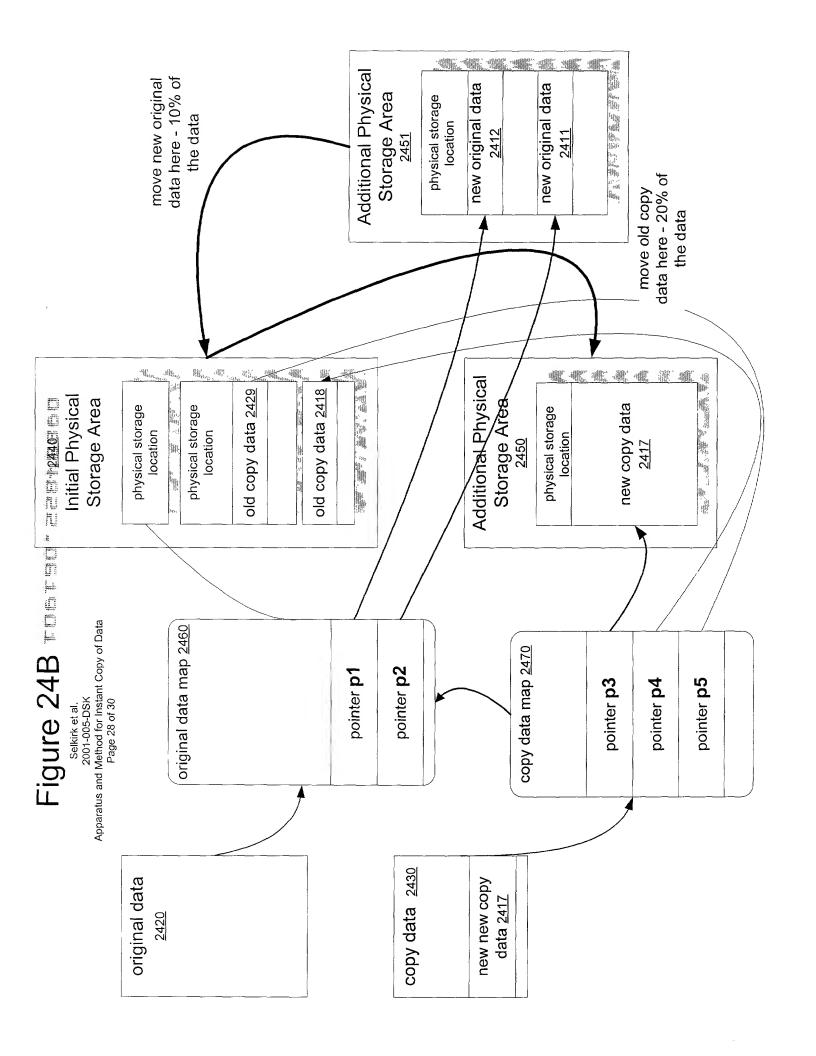


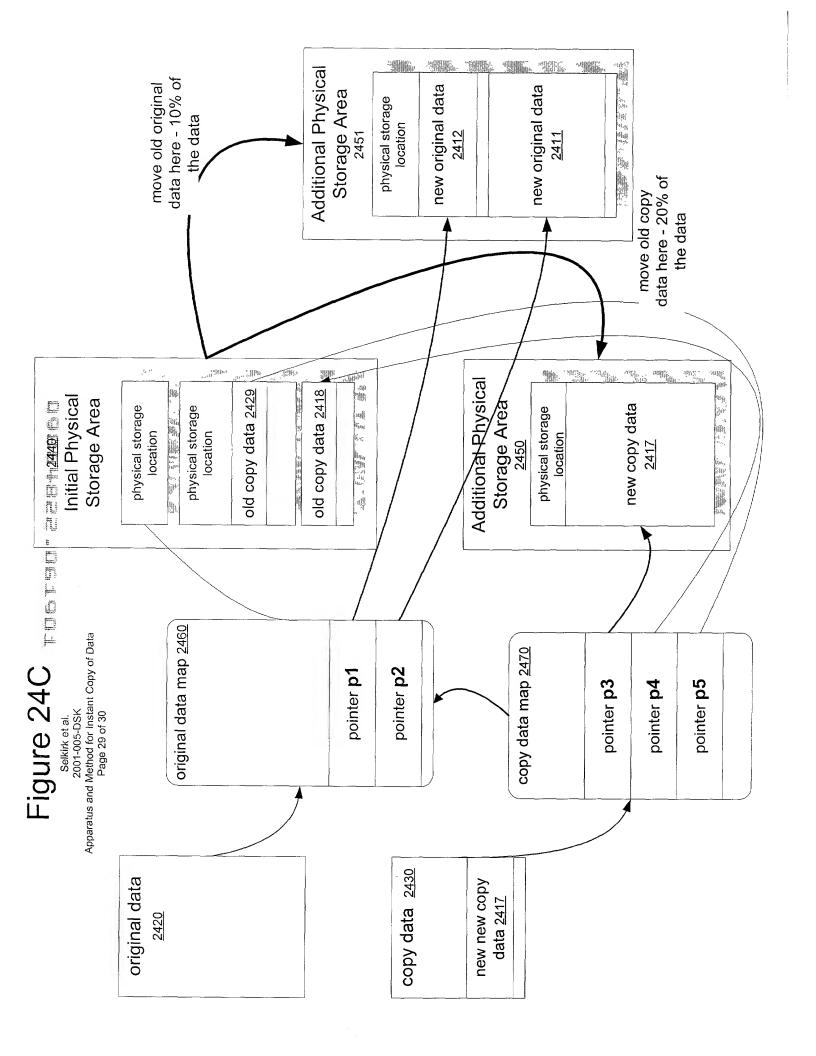


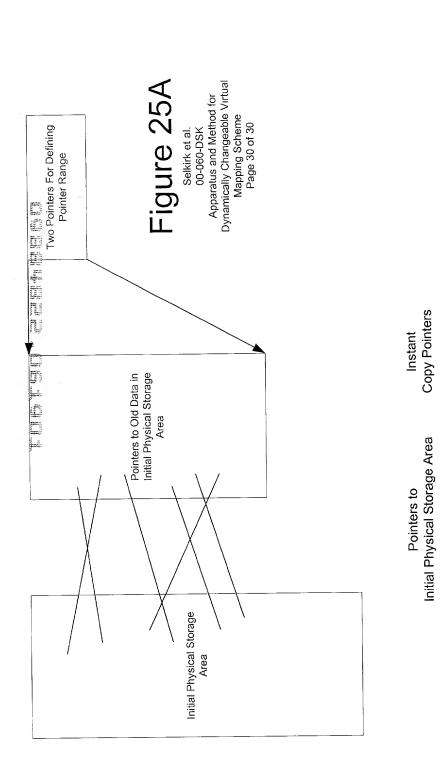














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